IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of SKOOG et al.

Serial No. 10/726,361

: Group Art Unit 1762

Application Filed

December 3, 2003

: Examiner: Turocy, David P.

For: SPRAYABLE NOBLE METAL COATING FOR HIGH TEMPERATURE USE DIRECTLY ON AIRCRAFT ENGINE ALLOYS

DECLARATION UNDER 37 CFR § 1.132

Andrew J. Skoog, hereby certifies the following:

- 1. I am a joint inventor of all the claims of the patent application identified above and I am a joint inventor of the subject matter described and claimed therein.
- I have extensive knowledge of the compositions of superalloy and titanium materials and coatings applied over the substrates of superalloy and titanium materials, including reflective coatings.
- 3. I have observed differences in durability of a reflective coating applied over a substrate of superalloy and titanium materials when the reflective coating is applied by methods consisting of air-assisted spraying, airless spraying, brushing and decal transfer, when compared to other application methods. These differences in durability include enhanced inhibition of the reflective coating to erosion, corrosion and diffusion into the substrate of superalloy and titanium materials.
- 4. I have observed differences both in the duration and the magnitude of temperature that can be withstood by a reflective coating applied over a substrate of superalloy and titanium materials when the reflective coating is applied by methods consisting of air-assisted spraying, airless spraying, brushing and decal transfer, when compared to other application methods. These differences include the reflective coating having the capability not only to withstand higher temperatures, but also to withstand those higher temperatures for durations exceeding that of reflective coatings applied by different methods.
- 5. I have observed the ability of a reflective coating applied over a titanium material by methods consisting of air-assisted spraying, airless spraying, brushing and decal transfer to then successfully pass certain test procedures used to measure for stress corrosion cracking in the titanium material.
- 6. I have not observed the ability of a reflective coating applied over a titanium material by methods other than air-assisted spraying, airless spraying, brushing and decal transfer to then successfully pass the test procedures used to measure for stress corrosion cracking in the titanium material that were alluded to in item 5.

- 7. It is my belief, based on at least these observations, that application of a reflective coating over superalloy or titanium materials by methods consisting of air-assisted spraying, airless spraying, brushing and decal transfer, cannot be considered to be a "conventional" method of application, when compared to other application methods.
- 8. I hereby acknowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon, and I hereby declare that all statements made in this declaration of my own knowledge are true and that all statements made on information and belief are believed to be true.

Andrew J. Skoog